

REFERENCES

Boyer, Brian E. and Kenneth Brodnax, 1996. *Oil and Gas Production Emission Factors and Estimation Methods*. Complete Oil Field Management and Maintenance, Inc., Lafayette, Louisiana, and Mobil Exploration and Production Company, Houston, Texas. Presented at the Emission Inventory: Key to Planning Permits, Compliance and Reporting Conference, Air and Waste Management Association, September 4-6, 1996, New Orleans, Louisiana.

EIIP. 1999. Preferred and Alternative Methods for Estimating Air Emissions from Oil and Gas Field Production and Processing Operations, Volume II, Chapter 10. Prepared for the Point Sources Committee, Emissions Inventory Improvement Program under EPA Contract. U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards. Research Triangle Park, North Carolina.

TNRCC. 1996. Technical Guidance Package for Annual Air Emissions Inventory Questionnaires, Oil and Gas Industry, Draft. Texas Natural Resource Conservation Commission. Austin, Texas.



AUS 5 2013

Invoice

Cimarron Energy Inc.

P O Box 722110

Phone: Fax:

(405) 928-7373 (405) 928-7380

Norman, OK 73070

Invoice: 0020454-IN

Date:

7/31/2013

Ordered by: Bill To:

> Antero Resources - APPALACHIAN 1625 17th Street, Suite 300 Denver, CO 80202

> > SN # SEE BELOW

Region:

APPALACHIA

WO#:

13635-19 THRU 24

Ship Date: 7/31/13

Terms SHIP VIA

Tax ID F.O.B. Customer P.O. Sales Rep Our # WEST UNION, NET 30 26-0639252 TW - J & A Service LYNNCO 26236 THRU 41 N wv Total Amount Unit Price Description Qty

6.00 ECD 48" HV W/ PAD

\$27,172.00

\$163,032.00

SN 1363519, 1363520, 1363521, 13635,22, 1363523, 1363524

New Remit Lockbox

Cimarron Energy Inc. P.O. Box 223857 Pittsburgh, PA 15251-2857

New Remit ACH/Wire

Account 103-3461 Cimarron Energy Inc. BNY Mellon N.A. 500 Ross Street, Pittsburgh, PA ABA 043 000 261

Swift: MELNUS3P XXX

Net Invoice:

\$163,032.00

Freight:

\$6,794.00 \$0.00

Sales Tax Invoice Total:

\$169,826.00

CIÁ	AARRON	DELIVERY TICKET		NO.	26236
ate	7/24/2013			Ship From	Newcastle
DELIVE	RY				
	Hall Welding Yard - Antero		ANA	i 	
CUSTOMER	England's Run Road		NTRACOMPANY		
JSTO	West Union, WV 26456		TRAC		
ฮ	POC: Jack Strickler # 304-588-6474		Z	-	
	Special Instructions				
ASME VE	ESSELS IO	SERIAL NO			
Igniters		SERIAL NO.			
CIMARR	NO	PECIFIED. THIS SIGNATURE ALS		VERIFIES THAT THE	IE SERIAL NUMBERS LISTED TAGS ARE PROPERLY

RECEIPT

RECEIVED IN GOOD ORDER BY

Could L

DATE

7-24-13



Invoice

Cimarron Energy Inc.

Invoice: 0034301-IN Date: 11/20/2015

Tax ID

26-0639252

P O Box 722110

Phone: (405) 928-7373

Norman, OK 73070

Fax: (405) 928-7380

Bill To: Ordered by:

Antero Resources -APPALACHIAN 1615 Wynkoop Street

Denver, CO 80202

29446 N

CHAD DAVES

SN#

Region:

APPALACHIA

WO#:

13781-61

Ship Date: 11/20/15

 Customer P.O.
 Our #
 Sales Rep
 FOB
 SHIP VIA
 Terms

 A00131
 SO 102523
 N/A
 shipping point
 LYNNCO
 NET 30

 Oty
 Description
 Unit Price
 Total Amount

 1.00 ECD: HV 48" 2" W/ ACTUATOR
 \$26,125.00
 \$26,125.00

1.00 ECD: HV 48" 2" W/ ACTUATOR Serial 13781-61

Serial Number: 1.00-

New Remit Lockbox Cimarron Energy Inc. Dept. 699 P.O. Box 4346 Houston, TX 77210-4346 New Remit
ACHAWire
Account 5791940264
Cimerron Energy Inc.
Amegy Bank of Texas
1801 Main Street
Houston, TX 77002
ABA# 113011256
Swift Code: SWBKUS44
Tet (713) 235-8811

PENNSBORO,

Net Invoice: \$26,125.00
Less Discount: \$0.00
Freight: \$1,010.00
Sales Tax: \$0.00
Invoice Total: \$27,135.00

C	MARRON	DELIVERY TICKET		NO	29446
Date	11/20/2015			Ship From	Newcastle
DELIV	ERY				
CUSTOMER	Hall Welding Yard - Antero 2795 Lamberton Road Pennsboro, WV 26415 POC: LOREN SELLERS # 304-58 Special Instructions	8-3291	INTRA COMPANY		
	CRIPTION ECD-HV-47"DX24	0''L		UNIT SERIAL N (Work Order No.)	
	0 0	SERIAL NO		SERIA	L NO
igniters	0	SERIAL NO.			
ABOVE M	ON EMPLOYEE:	R SPECIFIED. THIS SIGNATURE ALSO			SERIAL NUMBERS LISTED TAGS ARE PROPERLY
RECEIVE	PT O IN GOOD ORDER BY	2		DATE	11-20-15

RECEIVED IN GOOD ORDER BY



Invoice Number: NC00000268

Page: 1 of 1 Date: 12/19/2016

Salesperson:

AN00004

B Antero Resources -APPALACHIAN

1615 Wynkoop Street I Denver CO 80202

L L

T 0 S Antero Resources - APPALACHIAN

H 1615 Wynkoop Street I Denver CO 80202

P T 0

Fax:

Fax:		W 1 1		Ship Via	Terms
Order	Purchase Order	Weight		Sinp via	N30
ECD0000027	CEA04480 13862- 13-52				
Line/Rel	Qty Ordered 40.000	Qty Shipped	Back Order	Unit Price	Extended Price

Item: ECDHV Description ECD: HV 48"

U/M: EA Date Shipped: 12/9/2016

Ext Price:

1,032,600.00

38 1 unit shipped - 13862-41

25,815.00

Progressive Billing:

2

40.000

Item: Freight

Description Freight to Haul Product to Customer

U/M: EA

Date Shipped: 12/9/2016

Ext Price:

36,000.00

38 Freight - BOL #002795662MG DT #29829

900.00

Progressive Billing:

Swift Code. SWBKUS44 Tel: (713)235-8811

	Sales Amount	26,715.00
Remit to Lockbox	Misc Charges	0.00
Cimarron Energy Inc. Dept 699	Freight	0.00
P.O. Box 4346 Houston, TX 77210-4346	Sales Tax	0.00
Remit ACH/Wire Account: 5791940264	Prepaid Amount	0.00
Cimarron Energy Inc. Amegy Bank of Texas	Total	26,715.00
Houston, TX 770022 ABA#: 113011258		

-	
OHURDDON	
GMARKUN	
ENERGISCH STREET	r

DELIVERY TICKET NO.

29829

\mathcal{L}	A Line United	DELIVER! HORE:			
ate	11/4/2016		Ship From _	Ne	wcastle
ELIVE	ERY				
CUSTOMER	Hall Welding Yard - Antero 2798 Lamberton RD Pennsboro, WV 26415 POC: Loren Sellers # 304-588				
	Special Instructions				
•	SCRIPTION ECD-HV-47"DX2	40"L		RIAL NO.	13862-41
	FSSELS NO	SERIAL NO		SERIAL NO	
Igniters SERIAL N	NO	SERIAL NO.			
ABOVE	HED TO THE UNIT AT THE TIME OF	BER SPECIFIED. THIS SIGNATURE ACC			NUMBERS LISTED RE PROPERLY
RECEIV	EIPT VED IN GOOD ORDER BY	Schert Swams		DATE	11-4/5

						BOL NO:	002795662MG	
BILL OF LADING						Carrier: L & B TRANSPORT INC		
			p From			Pickup Date: 11-04-2016		
CIMARRON NE	WCASTLE						Origin Terminal	
4190 S HARV								
NEWCASTLE, OK 73065							Destination Terminal	
Belinda White Ship\Rec Hrs 0700-1430 M-F, 800-424-3952,							Desdiration Terminal	
Ship To								
HALL WELDING YARD							:	
2798 LAMBER	TON RD					BOL		
PENNSBORO,						PO Number	NWC704	
LOREN SELLE	RS, 304-5	88-329)1,			Part Number WO Number	**************************************	2-43
	3rd Pa	rty Frei	ght Charges	Bill To]		
LYNNCO SUPP	LY CHAIN	SOLUTI	ONS					
PO BOX 2170								
BROKEN ARRO						1		
LYNNCO TMG,	918-664-	7490,	F: 918-6	64-7493				
Customer Specie	1 Instructions	: BELINDA	800-424-39	52 PERSON SIG	NING FOR PRODUCT	HUST	Freight Terms:	
PETRIV DRINT N	TAME ON HOL. O	P DAVMEN	T COULD BE I	DELAYED. NO DO	CKS AT CIMARRON	LOCATION.	Prepaid:	
CUSTOMER REQUIR SAFETY GLASSES,	STEEL TOED	BOOTS, A	ND LONG PANT	rs)sTEPDE	K CRANE/CREW UN	LOAD	Collect:	
Accessorials: Ap	nointment						3rd Party: _x_	
Vecessor in 191 v.b.	poznemene							
		HM	>111.650	ID	Identification Numbe	r (UN or NA), Preper S	Scription Shipping Name, Hazard Ches, Packing	LTI
Qty Type	Weight 32000 lb	(X)	NMFC	Item ID Shipping It	Group, per 172.101, 1 cem ECD-HV-47D	r (UN or NA), Freper 5 72.202, 172.203)	Shipping Name, Hazard Ches, Packing	Clas 85.0
		0.000	NMFC		Group, per 172.101, 1 cem ECD-HV-47D	r (UN or NA), Proper 5 72.202, 172.203) X.240 I.	Shipping Name, Hazard Ches, Packing	Clas
3 UNT	32000 lb	(X)		Shipping It	Green, per 172.161, I'cem ECD-HV-47D: Dimensions	r (UN or NA), Proper 5 72.992, 172.263) X240L : 256.0 X 5	Shipping Name, Hazard Ches, Packing	Clas 85.0
3 UNT 3 Where the rate is depende	32000 lb	(X)		Shipping It	Green, per 172.161, I'cem ECD-HV-47D: Dimensions	r (UN or NA), Proper 5 72.992, 172.263) X240L : 256.0 X 5	Shipping Name, Hazard Ches, Parking	Clas 85.0
3 UNT 3 Where the rate is depende specifically stated by the	32000 lb	(X)	to state specifically	Shipping It	Green, per 172.161, I'cem ECD-HV-47D: Dimensions	r (UN or NA), Proper 5 72.992, 172.263) X240L : 256.0 X 5	Shipping Name, Hazard Ches, Packing	Clas 85.0
3 Where the rate is depende pecifically stated by the Remit COD to: Collect Pro	32000 lb 32000 lb ent on value, shippert to be not exceptaidC	(X)	to state specifically per	in writing the agreed of	Green, per 172.161, 1'cem ECD-HV-47D: Dimensions GRA GRA r declared value of the pro	r (UN or NA), Proper 5 72.192, 172.183) X240L : 256.0 X 5	Shipping Name, Hazard Ches, Packing	Clas 85.0
3 Where the rate is depende specifically stated by the Remit COD to: Collect Pro	32000 lb 32000 lb ent on value, shippert to be not exceptaidC	(X)	to state specifically per	in writing the agreed of the applicable. See	GRA GRA GRA A declared value of the pro	r (UN or NA), Proper 5 72.192, 172.183) X240L : 256.0 X 5	Shipping Name, Hazard Ches, Packing	Clas 85.0
3 Where the rate is depende specifically stated by the Remit COD to: Collect Pro Note: Liability limits Received, subject to indiv	32000 lb 32000 lb ent on value, shippers shipper to be not exceptedC	are required ceding ustomer camage in the	to state specifically per check accepts is shipment may	in writing the agreed of the applicable. See	GRA GRA GRA A declared value of the pro	r (UN or NA), Proper 5 72.292, 172.282) X240L : 256.0 X 5 LND TOTALS: perty as follows: "The	Shipping Name, Hazard Chas, Packing 1.0 X 72.0 c sgreed or declared value of the propertuot make delivery of this shipment with	Clas 85.
3 Where the rate is depende specifically stated by the Remit COD to: Collect Pro Note: Liability limits Received, subject to individual specification in write otherwise to the rates, cla	32000 lb and on value, shippen shipper to be not exceptableC aften for less or dividually determined a ing between the carriassifications and rule:	ustomer camage in the	to state specifically per check accepts Is ahipment may cits that have if applicable, mestablished	in writing the agreed of the applicable. See	GRA GRA GRA A declared value of the pro	r (UN or NA), Proper 5 72.292, 172.282) X240L : 256.0 X 5 LND TOTALS: perty as follows: "The	Shipping Name, Hazard Chas, Packing 1.0 X 72.0 It is agreed or declared value of the property	Clas 85.
3 Where the rate is depende pecifically stated by the Remit COD to: Collect Pro Note: Liability limits Received, subject to individen a greed upon in writing the rates, clay by the carrier and are away	32000 lb and on value, shippers to be not excepted C widen for less or dividually determined a ing between the carn assifications and rules tilable to the shipper.	ustomer camage in the	to state specifically per check accepts Is ahipment may cits that have if applicable, mestablished	in writing the agreed of the applicable. See Trailer Loaded:	GRA GRA GRA declared value of the pro Amount: 49 USC 14706(c)(1)(/ Freight Counted:	r (UN or NA), Proper 5 72.292, 172.283) X240L : 256.0 X 5 LND TOTALS: perty as follows: "The	Shipping Name, Hazard Chas, Packing 1.0 X 72.0 c sgreed or declared value of the propertuot make delivery of this shipment with	Clas 85.
3 Where the rate is depende specifically stated by the Remit COD to: Collect Pro Note: Liability limits Received, subject to individe the same and are ava applicable state and feder	32000 1b 32000 1b and on value, shipper abipper to be not exceptedC aften for less or dividually determined a ring between the carriagn fiftentions and rules thable to the shipper, and regulations.	ustomer camage in the	to state specifically per check accepts Is ahipment may cits that have if applicable, mestablished	in writing the agreed of the applicable. See Trailer Londed:	GRA GRA GRA Amount: 49 USC 14706(c)(1)(/ Freight Counted: by Shipper by Driver Carrier Signature	r (UN or NA), Proper 5 72.292, 172.203) X240L : 256.0 X 5 UND TOTALS: perty as follows: "The A) and (B). The carrier shall n payment of freight Shipper: The Chickup Date	Shipping Name, Hazard Chais, Packing 1.0 X 72.0 continued to the propertion of the propertion of make delivery of this shipment with and all other lawful charges. Buttor e:	Clas 85.
3 Where the rate is depende specifically stated by the COD to: Remit COD to: Pro Note: Liability limits Received, subject to individe a greed upon in write otherwise to the rates, claby the earrier and are ava applicable state and feder	32000 lb and on value, shippers to be not excepted C atten for less or dividually determined a single between the earn assifications and rules dilable to the shipper, ral regulations. Te/Date: above named materic r condition for transp	ustomer of amage in the asset or contract and shipper on that is that have been on request, as	to state specifically per check accepts is shipment may if applicable, mestablished ad to all	in writing the agreed of the applicable. See Trailer Londed: by Shipper by Driver	GRA GRA GRA or declared value of the pro Dimensions GRA or declared value of the pro Dimensions GRA or declared value of the pro Dimensions GRA or declared value of the pro Counted: by Shipper by Driver Carrier Signatur Carrier acknowledges recresponse information was mersency response guide	r (UN or NA), Proper 57, 292, 172, 293, 172, 283) X24 0 I. : 256.0 X 5 ND TOTALS: perty as follows: "The A) and (B). The carrier shall in payment of freight Shipper: Te/Pickup Date cipt of packages and is made available and debook or equivalent telebook or equivalent captured.	Shipping Name, Hazard Chais, Packing 1.0 X 72.0 continued to the propertion of the propertion of make delivery of this shipment with and all other lawful charges. Button	Clas 85.
3 Where the rate is depende specifically stated by the rate is depende specifically stated by the rate. Collect	32000 lb and on value, shippers to be not excepted C atten for less or dividually determined a single between the earn assifications and rules dilable to the shipper, ral regulations. Te/Date: above named materic r condition for transp	ustomer of amage in the asset or contract and shipper on that is that have been on request, as	to state specifically per check accepts is shipment may cits that have the if applicable, the established and to all	in writing the agreed of the applicable. See Trailer Londed: by Shipper by Driver	GRA GRA GRA GRA GRA GRA GRA GRA	r (UN or NA), Proper 57, 292, 172, 293, 172, 283) X24 0 I. : 256.0 X 5 ND TOTALS: perty as follows: "The A) and (B). The carrier shall in payment of freight Shipper: Te/Pickup Date cipt of packages and is made available and debook or equivalent telebook or equivalent captured.	Shipping Name, Hazard Chais, Packing 1.0 X 72.0 1.0 X 72.0 1.0 X 72.0 1.0 End of the propertion of the properties of the property of the property description of the property descriptio	Class 85.0



Version	11.3				
Date	04/30/2018 15:30				
User	NSUMMERFIELD				
Work Order Barcode Task Plan instructions Work Order Custom Fields Work Order User Defined Fields Equipment Custom Fields Equipment User Defined Fields Booked Hours Print Attachments Print Images Reprint Include Comments Include Task Plan Checklist Include Nonconformities	20587041 No No Yes Yes Yes Yes Yes Yes No Yes No Yes	[WW Air Compliance Inspection Checklist (Quarterly)]			





Work Order

Work Order 20587041 Scheduled Start Date 04/01/2018
W Air Compliance Inspection Checklist (Quarterly) Scheduled End Date 06/29/2018

Status 10-Closed

| Created By | MGROGG | MGROGG

WO Type PM Parent WO
Preventive maintenance Class REG
Department PRODW/ Priority ROUTINE

Production West Virginia Warranty
PM Schedule PROD-AIR-001 Safety

WV Air Compliance Inspection Checklist Equipment Criticality 6

(Quarterly)

Cost Code Assigned To NSUMMERFIELD
Reported By MGROGG

Problem Code Assigned By ENV

Project Campaign Event

Standard WO

Equipment

Equipment YVONNEPAD Location YVONNEPAD-L

Yvonne Pad Reliability Ranking

Manufacturer Reliability Ranking Index
Model Reliability Ranking Score

Serial Number

Equipment Custom Fields

Equipment User Defined Fields

Prospect Area CANTON

Work Order Custom Fields

Work Order User Defined Fields

How Found Code PM Created

Comments

NSUMMERFIELD [04/06/2018 14:10]:

Inspection took place on 4/3/18 between 8:00 am - 10:00 am All first attempt repairs were made by warrior crew and roustabout Leaks were detected within the closed vent system

Leaks with Work Orders:

- GPU Brocade 1H gas out line hammer union threads leaking WO # 20588167
- -Leaks fixed on site:
- Tank 14 enardo leaking
- Tank 1 Hammer Union
- GPU Burlington 1H stainless connection between butterfly valves
- GPU Manzarek 2H stainless connection into butterfly valve

Combustor(s):





Comments

SN#	Set-Point	Temp(F)
13635-24	2018	859
1378161	1998	922
13862-41	2026	94 main off low prs

VRU(s):

Brand	Skid	Hours	Status
Kubota	11358	9605	Temp
Kubota	10434	9953	Temp
Kubota	11433	10250	Temp
Kubota	11442	9210	Temp
Kubota	11246	4583	Temp
Kubota	10852	486	*2016-20.

Kubota 10852 486 NSUMMERFIELD [04/06/2018 14:25]:

WO# 20588167 Repair made on 4/5/18 and re-monitored on 4/5/18. No leak was detected work order closed.

Activity List

Activity 10	Task Plan Description WV air compliance inspection Quarterly		Trade FT	Start Date 04/01/2018	End Date 04/01/2018	Supplier
	Booked Hours	ks		9900		T
	Employee	Date	Time On	Time Off	Total Time	Type of Hours

























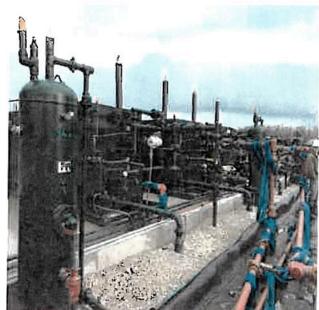






















Site Information

YVONNE Pad Name

Date 4/3/2018

Observer

Nick Summerfield

Temperature 43 F

InspectionType

Initial ☐ Monthly ☐ Quarterly

Weather Rain

Method 22 - Visual Determination of Fugitive Emissions

Clock Time	Observation period duration (minutes)	Duration visible emissions (minutes)	Total observed emissions: 0 Min Drawing
			प्रथम् <u>१५५२</u> १० <u>(०००००</u> ०००)
8:00 AM	15	0	UANS GRUS
8:15 AM	15	0	00000000
8:30 AM	15	0	mello
8:45 AM	15	0	Sensial & Company
9:00 AM	15	0	Kond
9:15 AM	15	0	TH N
9:30 AM	15	0	Wind Direction 10 mph south
9:45 AM	15	0	Additional Notes:
10:00 AM	15	0	Initial inspection

Name (Inspector): Nick Summerfield

Signature:





H





Site Informa	tion			
Pad Name	YV	ONNE		Date 5/29/2018
Observer	Alic	cia Rafuse		Temperature 73 F
InspectionTy	ype	☐ Initial 区 Monthly	/ Quarterly	Weather Cloudy
Method 22 -	Visu	al Determination of	Fugitive Emission	ons
Clock Time	9	Observation period duration (minutes)	Duration visible emissions (minutes)	Total observed emissions: 0 Min Drawing
9:45 AM				
		1	0	# Down Ce wy
		1	0	<i>حبلا</i> چېد ۵ د ۱ د د د د د د د د د د د د د د د د
		1	0	7
		1	0	
		1	0	alis/ Zac
		1	0	we / =
		1	0	Wind Direction 0
		1	0	Additional Notes:
		1	0	No issues
		1	0	
		1	0	
		1	0	
		1	0	Name (Inspector): Alicia Rafuse
		1	0	Signature:
10:00 AM /ONNE		1	0	of 1 5/29/201



II) Tank Inspections			
Tank Vents	Olfactory	<u>Visual</u>	<u>Auditory</u>
2. Cracks	☐ Yes 🗵 No	Yes X No	Yes X No
3. Loose connections	☐ Yes 🕱 No	☐ Yes 🗷 No	☐ Yes 🕱 No
4. Holes and/or gaps	☐ Yes 🕱 No	Yes X No	Yes X No
5. Broken and/or missing caps or closure	☐ Yes 🕱 No	☐ Yes 🗵 No	☐ Yes 🕱 No
6. Liquid Leaks If so, Immediately contact Env.Representative	☐ Yes 🗷 No	☐ Yes 🗷 No	☐ Yes 🕱 No
Comments:			
Tank Structure	Olfactory	<u>Visual</u>	Auditory
7. Cracks	Yes X No	☐ Yes 🗷 No	☐ Yes 🕱 No
8. Holes and/or Gaps on Structure	☐ Yes 🕱 No	☐ Yes 🗷 No	Yes X No
9. Broken, craked or damaged seals	☐ Yes 🗷 No	☐ Yes 🕱 No	Yes X No
10. Broken and/or missing access (e.g. manholes)	☐ Yes ເ No	Yes X No	☐ Yes 🕱 No
11. Liquid Leaks			□ Voc. ☑ No.
If so, Immediately contact Env. Representative	☐ Yes 区 No	Yes X No	Yes X No



II) Tank Inspections (Continued)			
Tank Piping	Olfactory	Visual	Adita
10.01-7	-	<u>Visual</u>	Auditory
12. Cracks / pitting	Yes X No	Yes X No	Yes X No
13. Missing caps or seals	Yes X No	☐ Yes 🕱 No	☐ Yes 🗷 No
14. Damaged valves or connections	Yes X No	☐ Yes 🕱 No	☐ Yes 🕱 No
Comments:			
IV) Flare / Condenser			
Ignition System			
15. Flare operated with a flame present if g	gases being vented to it	?	🛚 Yes 🗌 No
16. An automatic flare ignition system has	been installed		🕱 Yes 🗌 No
17. Presence of pilot flame?			X Yes □ No
18. If using a pilot flame, is there an alarm flame in the pilot?	lack of	X Yes No	
 If using an electric arc ignition system, ignition system pulse continually. 	☐ Yes ☐ No		
Comments:			
No Bypass			
Equipment Malfunction			
20. Air vent obstruction?			□ Voc. ☑ N-
50 million (1900	. flows?		Yes X No
21. Is there evidence of liquids reaching the			Yes X No
22. Were gases vented through the flare wit	tnout a flame present?		☐ Yes 🗵 No
/ONNE	3 of 5		5/29/2018



IV) Flare	/ Condenser (Continued)			
If ves.	shutdown? look for the length of the event and the cause of the comments box	malfunction		Yes X No
Comment	rs:			
Work Ord			D	Priority
Photo #	Required Corrective Action	Item #	Resp. Party	Phoney
1				
2				
11.00				
3				
4				
5				
Ob	vations were discussed with Antero as necessar	rv on at		
Name (A		Name (Inspect		
	Signature:		Signatu	ire:



Site Photos for Corrective Actions

No Photo Taken

No Photo Taken

Photo 1

Photo 2

No Photo Taken

No Photo Taken

Photo 3

Photo 4

1

Photo Descriptions

No Photo

2

Taken

3

4

Photo 5

5





Site Informa	ition			
Pad Name	YV	ONNE		Date 6/26/2018
Observer	Alic	Alicia Rafuse		Temperature 73 F
InspectionTy	ype	☐ Initial 🗵 Monthly	√ ☐ Quarterly	Weather Cloudy
Method 22 -	Visu	al Determination of	Fugitive Emission	ons
Clock Time	e	Observation period duration (minutes)	Duration visible emissions (minutes)	Total observed emissions: 0 Min Drawing
11:00 AM				Transaction (Help
		1	0	Expon Cros
		1	0	40 0 11. 600 37 AD
		1	0	1
		1	0	100000 1000 100 100 100 100 100 100 100
		1	0	aling and
		1	0	may 2
		1	0	Wind Direction 0
		1	0	Additional Notes:
		1	0	No issues
		1	0	
		1	0	
		1	0	
		1	0	
		1	0	Name (Inspector): Alicia Rafuse
11:15 AM		1	0	Signature:
/ONNE			10	of 1 6/26/2018



II) Tank Inspections			
Tank Vents	Olfactory	<u>Visual</u>	Auditory
2. Cracks	☐ Yes 🗵 No	☐ Yes 🗵 No	Yes X No
3. Loose connections	Yes X No	☐ Yes 🗷 No	☐ Yes 🗷 No
4. Holes and/or gaps	Yes X No	Yes X No	☐ Yes 🕱 No
5. Broken and/or missing caps or closure	Yes X No	Yes X No	Yes X No
6. Liquid Leaks If so, Immediately contact Env.Representative	☐ Yes 🕱 No	☐ Yes 🗷 No	☐ Yes 🗷 No
Comments:			
Taula Churchana			
Tank Structure	Olfactory	<u>Visual</u>	Auditory
7. Cracks	Olfactory ☐ Yes ☒ No	<u>Visual</u> ☐ Yes ☒ No	Auditory ☐ Yes ※ No
		70mm) 60m, 1984 (1990)	
7. Cracks	☐ Yes 🗷 No	☐ Yes 🗷 No	☐ Yes 🗷 No
7. Cracks 8. Holes and/or Gaps on Structure	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No
7. Cracks 8. Holes and/or Gaps on Structure 9. Broken, craked or damaged seals 10. Broken and/or missing access	☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No	☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No	☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No
7. Cracks 8. Holes and/or Gaps on Structure 9. Broken, craked or damaged seals 10. Broken and/or missing access (e.g. manholes) 11. Liquid Leaks	☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No	☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No	☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No



II) Tank Inspections (Continued)						
Tank Piping	Olfactory	<u>Visual</u>	Auditory			
12. Cracks / pitting	Yes X No	Yes X No	☐ Yes ☒ No			
13. Missing caps or seals	☐ Yes 🗷 No	☐ Yes ☒ No	Yes X No			
14. Damaged valves or connections	☐ Yes 🕱 No	☐ Yes 🕱 No	Yes X No			
Comments:						
IV) Flare / Condenser						
Ignition System						
15. Flare operated with a flame present if g	ases being vented to i	1?	🗷 Yes 🗌 No			
16. An automatic flare ignition system has	been installed		🗴 Yes 🗌 No			
17. Presence of pilot flame?			🗓 Yes 🗌 No			
18. If using a pilot flame, is there an alarm system for alerting the lack of flame in the pilot?						
19. If using an electric arc ignition system, does the arcing of the electric arc						
Comments:						
Equipment Malfunction						
20. Air vent obstruction?			☐ Yes 🕱 No			
21. Is there evidence of liquids reaching the	flare?		☐ Yes ☒ No			
22. Were gases vented through the flare wit	hout a flame present?		Yes X No			
YVONNE	3 of 5		6/26/2018			



YVONNE

Air Compliance Inspection Form

6/26/2018

IV) Flare / Conde	enser (Continued)			
23. Flare shutdo If yes, look for in the comment	the length of the event and the cause of the mai	function		Yes X No
Comments:				
Work Orders				
Photo #	Required Corrective Action		Resp. Party	Priority
1				
2				
3				
4				
5				
Observations we Name (Antero):	ere discussed with Antero as necessary on	at Name (Inspector)	•	
Name (Antero).	Signature:	Marie (inspector)	Signature:	

4 of 5



Site Photos for Corrective Actions

No Photo No Photo Taken Taken

Photo 1 Photo 2

No Photo No Photo Taken Taken

Photo 3 Photo 4

Photo Descriptions
1

No Photo

Taken 3

4

Photo 5





Work Order

Work Order 20667105

WV Air Compliance Inspection Checklist (Quarterly)

Status Created By

10-Closed MGROGG

06/29/2018

Scheduled Start Date Scheduled End Date

07/01/2018 09/28/2018 Reprint

Date Started

Date Completed Time Completed

REG

ROUTINE

07/12/2018 10:00

WO Type Department

PM Schedule

Cost Code

Created

Preventive maintenance

PRODWV

Production West Virginia PROD-AIR-001

WV Air Compliance Inspection Checklist

(Quarterly)

Safety **Equipment Criticality**

Assigned To Reported By

Parent WO

Class

Priority

Warranty

Assigned By Campaign Campaign Event NSUMMERFIELD MGROGG ENV

Standard WO

Problem Code

Equipment

Equipment

YVONNEPAD

Yvonne Pad

Location

YVONNEPAD-L

Manufacturer Model

Serial Number

Reliability Ranking

Reliability Ranking Index Reliability Ranking Score

Equipment Custom Fields

Equipment User Defined Fields

Prospect Area

CANTON

Work Order Custom Fields

Work Order User Defined Fields

How Found Code

PM Created

Comments

NSUMMERFIELD [08/07/2018 15:03]:

Inspectioin took place on 7/12/18 between 9:50 am - 11:45 am All first attempt repairs were made by roustabout and pumper Leak was detected within the closed vent system

Leaks with work orders:

- GPU Burlington 1H dump bleeding WO# 20674342
- -Well Head Brocade 2H quick exhaust leaking WO# 20674343

Leaks fixed on site:

- Tank 8 emergency hatch/enardo leaking: cleaned
- VRU 10852 stainless fitting into valve: tightened
- VRU 10852 blue hammer union: tightened
- VRU 10852 stainless fitting leaking: tightened
- GPU Walker 3H dump bleeding : adjusted
- GPU Walker 3H stainless fittings into dump: tightened
- GPU Yoho 1H stainless fitting into ball valve: tightened
- GPU Yoho 1H dump bleeding : adjusted





Comments

- GPU Brocade 1H stainless fittings into ball valve: tightened
- GPU Brocade 2H stainless inot elbow: tightened
- -Well head Burlington 2H fittings into elbow: tightened
- Well Head Brocade 1H stainless fitting into valve x2: tightened

Combustor(s):

SN#	Set-Point	Temp(F)
13862-41	off	off
1378161	1988	1210
13635-24	2015	127 Low Pressure Main Off

VRU(s):

Brand Skid Kubota 10434 Kubota 10852 Hours 12130 Temp 2643

NSUMMERFIELD [07/27/2018 13:58]:

WO# 20674342 After discussion with other air team members this issue is considered a low bleed. This will not be recorded in the future

WC# 20674343 Repair made on 7/19/18 and re-monitored on 7/25/18. No leak detected work order closed.

Activity List

			outry mar		
Activity	Task Plan Description	Trade	Start Date	End Date	Supplier
10	WV air compliance inspection Quarterly	FT	07/01/2018	07/01/2018	
	Checklist				
	Sequence Description 10 Type of inspection 20 Weather 30 Temperature 40 Wind speed 50 Number of flares on s 60 Number of flares in o 70 is the pilot lit on the f	peration lare	Result Finding: QUAR Finding: CLR Value: 74 Degree Fahrenhei Value: 5 Miles Per Hour Value: 3 ALL UNITS OF ME Value: 2 ALL UNITS OF ME Finding: YES	ASURE	
	75 Operating Temp. of 0 80 MFG of Flare? 90 Flare operarated with present if gasses bei	flame	Value: 0 Degree Fahrenheit Finding: CIM Finding: YES		
	100 Type of automatic ign system instilled?	nition	Finding: PFIR		
	110 is ther an airm system the lack of flame in the		Finding: NO		
	130 Air vent obstruction?		Finding: NO		
	140 Is there evidence of reaching the flare?		Finding: NO		
	150 Were gasses vented flare without a flame		Finding: NO		
	160 Flere shutdown? If y	es,why.	Finding: NO		
	170 Method 22 complete		Finding: YES		
	180 Tank Inspestion com		Finding: YES		
	190 Tank inventory(list in comments)		Completed: Yes		
	200 Gpu inspection comp	leted?	Finding: YES		
	210 GPU inventory(list in comments)		Completed: Yes		
	220 VRU inspection com	pleted?	Finding: YES		
	230 VRU niventory(list in	comments)	Completed: Yes		
	240 VRU hours		Value: 0 Hour		
	250 LDAR inspection con	npleted?	Finding: YES		





Activity List

Activity

End Date Supplier Start Date Tack Plan Description

260 Type of LDAR inspection? Finding: QUAR
270 LDAR camera calibrated? Finding: YES
280 Calibration bottle number Value: 1,003 ALL UNITS OF MEASU
280 Were any leaks Finding: YES
280 Celebration bottle number Value: 1,003 ALL UNITS OF MEASU
280 Were any leaks Finding: YES
280 Celebration bottle number Value: 2 ALL UNITS OF MEASURE Finding: QUAR Finding: YES Value: 1,003 ALL UNITS OF MEASURE Finding: YES

Task Plan Instructions

Booked Hours

Total Time Type of Hours Time On Time Off Date **Employee**



























10/09/2018 14:46









Site	Inf	orr	nat	ior
------	-----	-----	-----	-----

YVONNE Pad Name

Date 7/12/2018

Observer

YVONNE

Nick Summerfield

Temperature 74 F

InspectionType ☐ Initial ☐ Monthly ☒ Quarterly

Weather Clear

Method 22 - Visual Determination of Fugitive Emissions

Method 22 - VI	sual Determination of	Fugitive Emissi	ons
Olask Time	Observation period duration (minutes)	Duration visible emissions	Total observed emissions: 0 Min
Clock Time		(minutes)	Drawing
10:00 AM	1	0	C FROD CONDO
	1	0	۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵۵
	1	0	Toole
	1	0	
	1	0	NT NA * OOD Food
	1	0	, ,
	1	0	Wind Direction 5 mph north west
	1	0	Additional Notes:
	1	0	
	1	0	
	1	0	
	1	0	
	1	0	Name (Inspector): Nick Summerfield
	1	0	
10:15 AM	1	0	Signature:
VONNE		1	of 1 7/12/2018









_						
	Site Information					
Observer Alicia F InspectionType Method 22 - Visual C		YVONNE		Date 8/28/2018 Temperature 71 F Weather Clear		
		Alicia Rafuse				
		rpe ☐ Initial ☒ Monthl	y Duarterly			
		Visual Determination of	f Fugitive Emissio	ons		
		Observation period duration (minutes)	Duration visible emissions (minutes)	Total observed emissions: 0 Min Drawing		
		1	0	7 June 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
		1	0	de sur se		
		1	0	Flore		
		1	0	0033011 10-15		
		1	0	alinge		
		1	0			
		1	0	Wind Direction 0		
		1	0	Additional Notes:		
		1	0	No issues		
		1	0			
		1	0			
		1	0			
		1	0	Name (Inspector), Aliaia Bafusa		
		1	0	Name (Inspector): Alicia Rafuse		
	8:25 AM	1	0	Signature:		
Y	VONNE		1.	of 1 8/28/2018		



II) Tank Inspections			
Tank Vents	Olfactory	Visual	<u>Auditory</u>
2. Cracks	Yes X No	☐ Yes 冠 No	☐ Yes 🔀 No
3. Loose connections	☐ Yes 🕱 No	☐ Yes 🗵 No	Yes 🗷 No
4. Holes and/or gaps	Yes X No	Yes X No	☐ Yes 🗵 No
5. Broken and/or missing caps or closure	Yes X No	☐ Yes 🗵 No	Yes X No
6. Liquid Leaks If so, Immediately contact Env.Representative	Yes X No	☐ Yes 🔀 No	☐ Yes 🗷 No
Comments:			
Tank Structure	Olfactory	Visual	Auditory
Tank Structure 7. Cracks	Olfactory ☐ Yes ☒ No	<u>Visual</u> ∐ Yes ເ⊠ No	<u>Auditory</u> ☐ Yes 🔀 No
7. Cracks	☐ Yes 🔀 No	☐ Yes ເ	Yes X No
7. Cracks 8. Holes and/or Gaps on Structure	☐ Yes ☑ No	☐ Yes ※ No	☐ Yes ☒ No
7. Cracks 8. Holes and/or Gaps on Structure 9. Broken, craked or damaged seals 10. Broken and/or missing access	☐ Yes 🗷 No ☐ Yes 🛣 No ☐ Yes 🕱 No	☐ Yes ※ No ☐ Yes ※ No ☐ Yes ※ No	☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No
7. Cracks 8. Holes and/or Gaps on Structure 9. Broken, craked or damaged seals 10. Broken and/or missing access (e.g. manholes) 11. Liquid Leaks	☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No	☐ Yes ※ No ☐ Yes ※ No ☐ Yes ※ No ☐ Yes ※ No	☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No
7. Cracks 8. Holes and/or Gaps on Structure 9. Broken, craked or damaged seals 10. Broken and/or missing access (e.g. manholes) 11. Liquid Leaks If so, Immediately contact Env. Representative	☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No	☐ Yes ※ No ☐ Yes ※ No ☐ Yes ※ No ☐ Yes ※ No	☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No ☐ Yes ☒ No



YVONNE	3 of 5		8/28/2018			
22. Were gases vented through the flare w	vithout a flame present?		☐ Yes 🕱 No			
21. Is there evidence of liquids reaching the		Yes X No				
20. Air vent obstruction?			☐ Yes 🔀 No			
Equipment Malfunction						
Comments:						
 If using an electric arc ignition system ignition system pulse continually. 	☐ Yes ☐ No					
18. If using a pilot flame, is there an alarm flame in the pilot?	using a pilot flame, is there an alarm system for alerting the lack of ame in the pilot?					
17. Presence of pilot flame?		een installed				
16. An automatic flare ignition system has	s been installed					
15. Flare operated with a flame present if	gases being vented to it	Yes □ No				
Ignition System	on System					
IV) Flare / Condenser						
Comments:	☐ Yes 🗷 No	L Tes KINO	☐ Yes 🗷 No			
14. Damaged valves or connections	☐ Yes ☒ No	☐ Yes ☒ No	☐ Yes ☒ No			
13. Missing caps or seals	☐ Yes ☒ No	☐ Yes ☑ No	☐ Yes ☒ No			
12. Cracks / pitting	Olfactory	Visual	Auditory			
Tank Piping	Olfasta	Vienal	A			
ti) Tank Inspections (Continued)						



IV) Flare / Con 23. Flare shutc If yes, look fo in the common	☐ Yes ⊠ No			
Work Orders Photo #	Required Corrective Action	ltem #	Resp. Party	Priority
1				
2				
3				
4				
5				
Observations	were discussed with Antero as necessar	ry on at		
Name (Antero):		Name (Inspec	tor): Signature:	
YVONNE		4 of 5		8/28/20



Site Photos for Corrective Actions

No Photo Taken No Photo Taken

Photo 1

Photo 2

No Photo Taken No Photo Taken

Photo 3

Photo 4

1

2

3

Photo Descriptions

No Photo

Taken

4

Photo 5

5